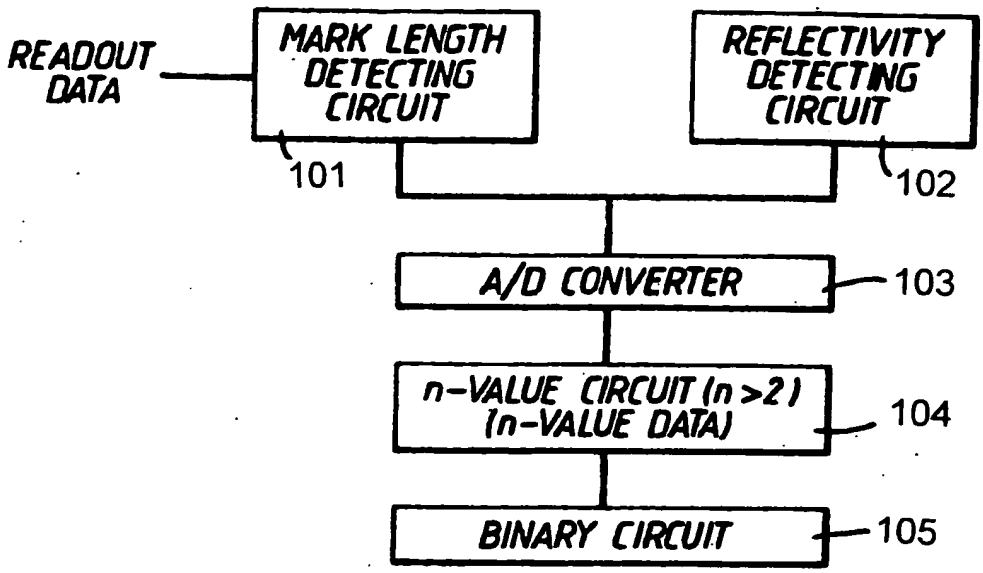


FIG. 1

EP 0 971 350 A1

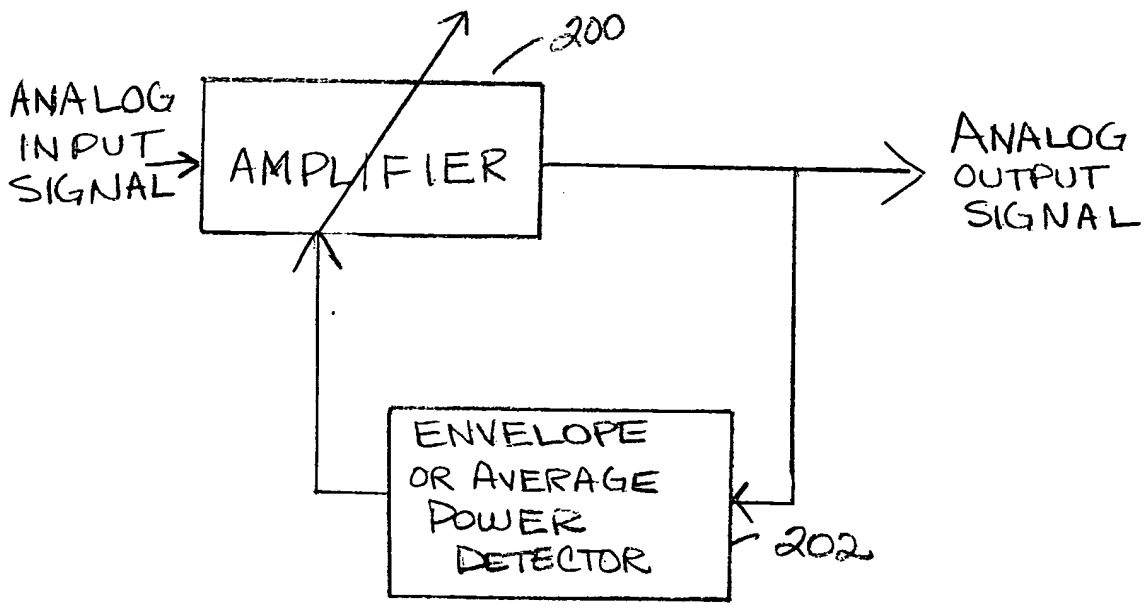


FIG 2A (PRIOR ART)

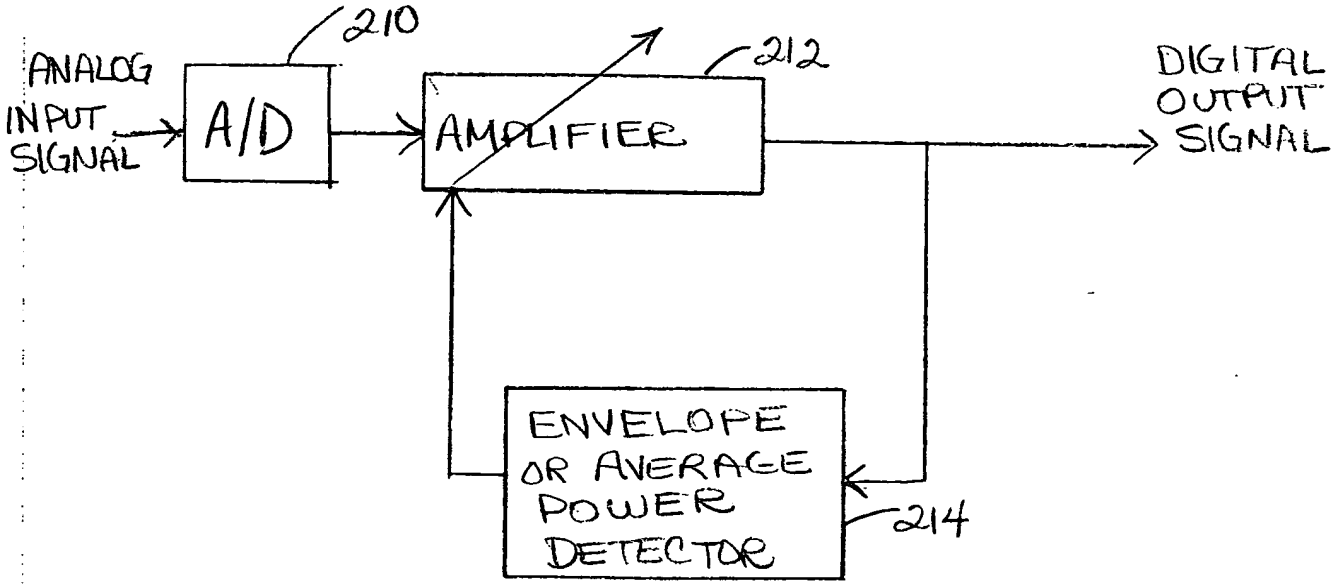


FIG 2B (PRIOR ART)

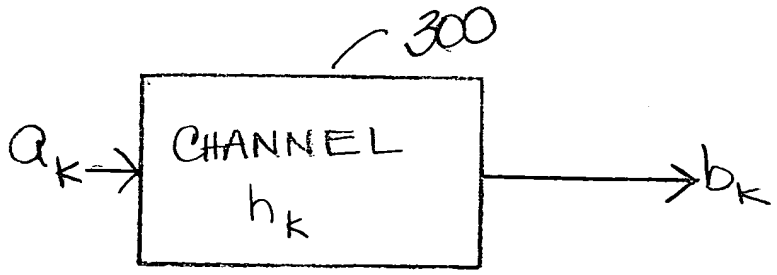
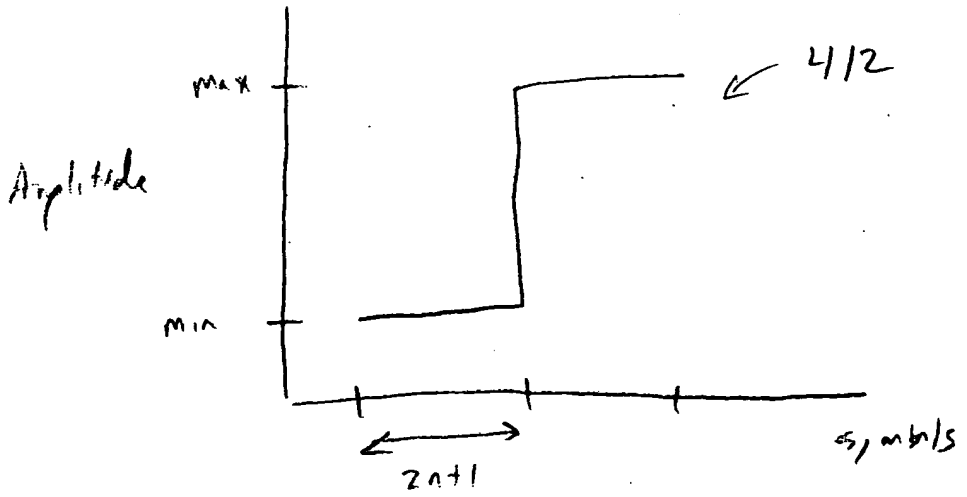


FIG 3

FIG. 4A


max
Amplitude
min
4/2
2n+1
symbols

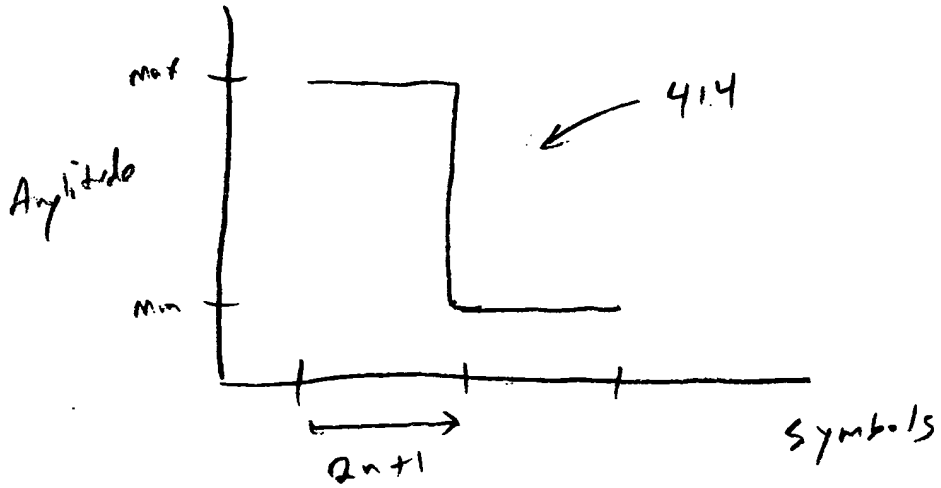

max
Amplitude
min
4:4
2n+1
Symbols

Figure 4B

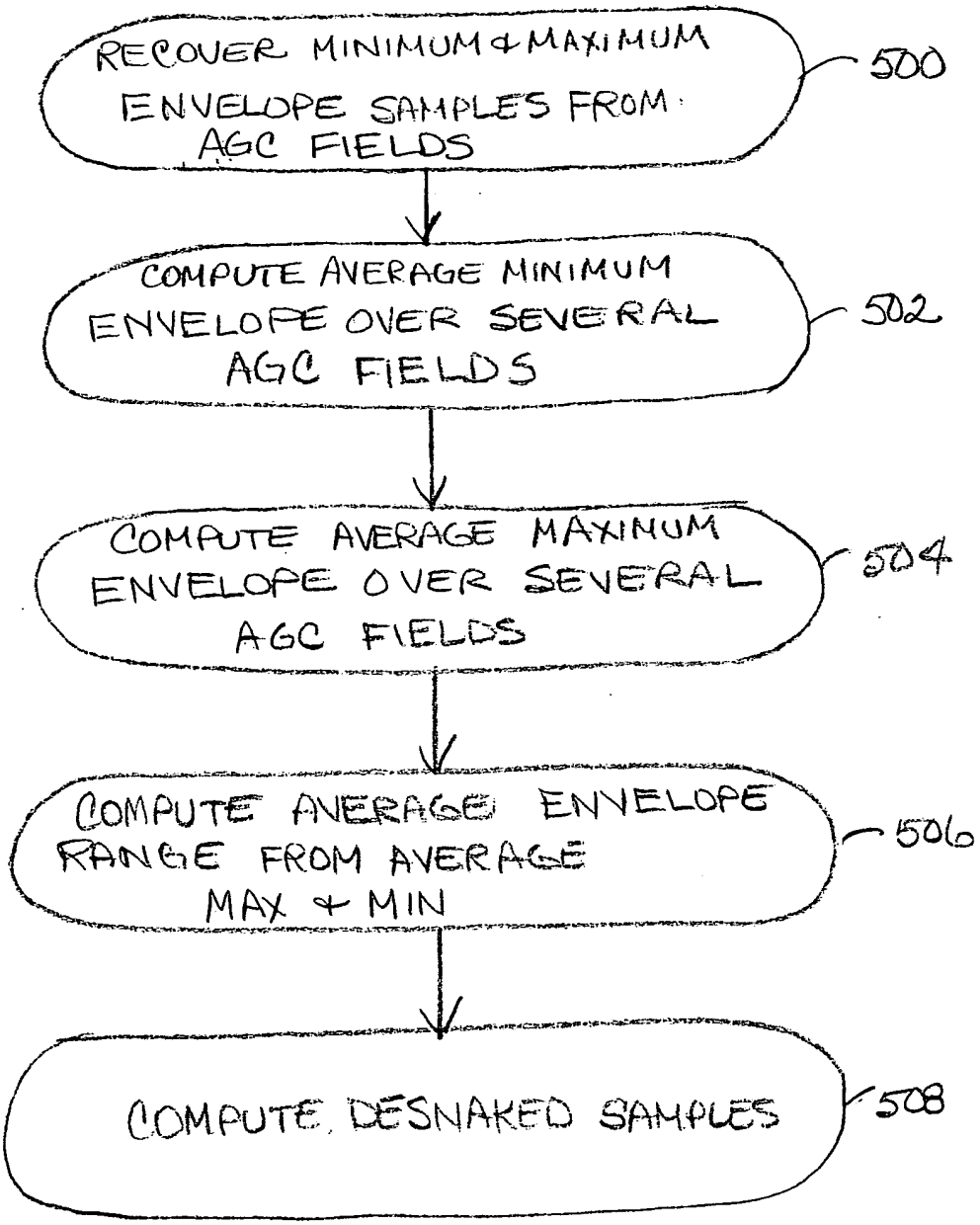

RECOVER MINIMUM & MAXIMUM ENVELOPE SAMPLES FROM AGC FIELDS
500
COMPUTE AVERAGE MINIMUM ENVELOPE OVER SEVERAL AGC FIELDS
502
COMPUTE AVERAGE MAXIMUM ENVELOPE OVER SEVERAL AGC FIELDS
504
COMPUTE AVERAGE ENVELOPE RANGE FROM AVERAGE MAX & MIN
506
COMPUTE DESNAKED SAMPLES
508

FIG. 5

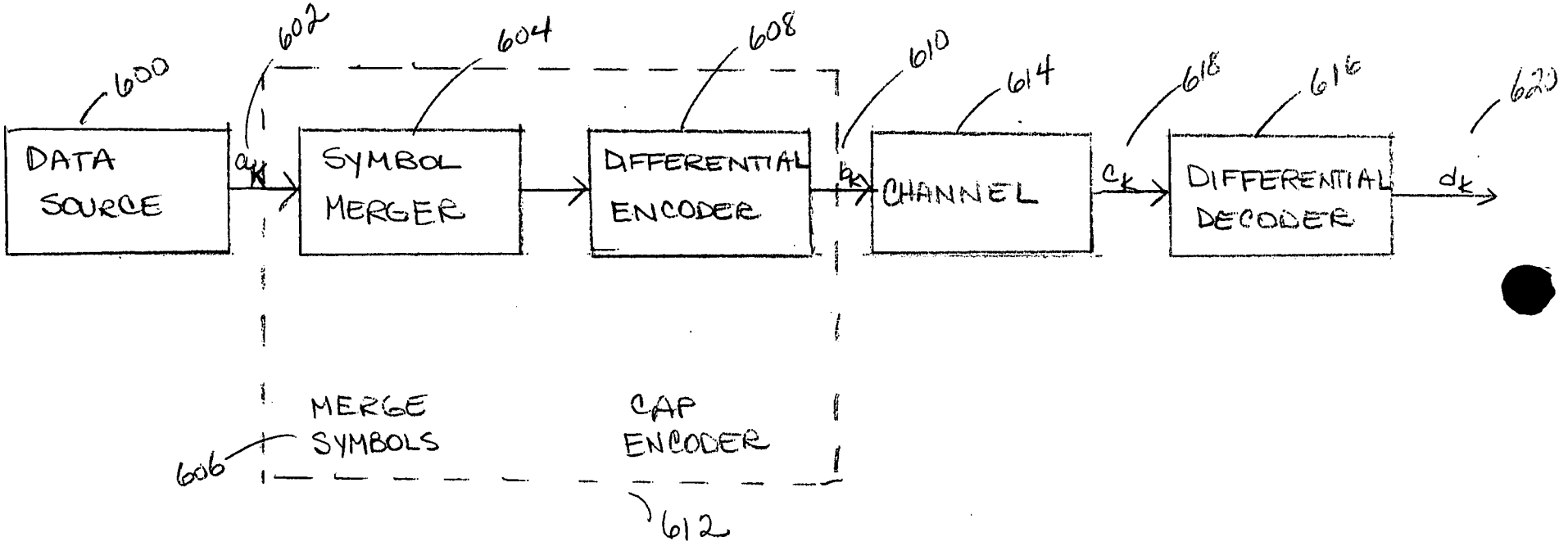

600
602
604
608
610
614
618
616
620
DATA SOURCE
a_k
SYMBOL MERGER
DIFFERENTIAL ENCODER
b_k
CHANNEL
c_k
DIFFERENTIAL DECODER
d_k
MERGE SYMBOLS
606
CAP ENCODER
612

FIG 6A

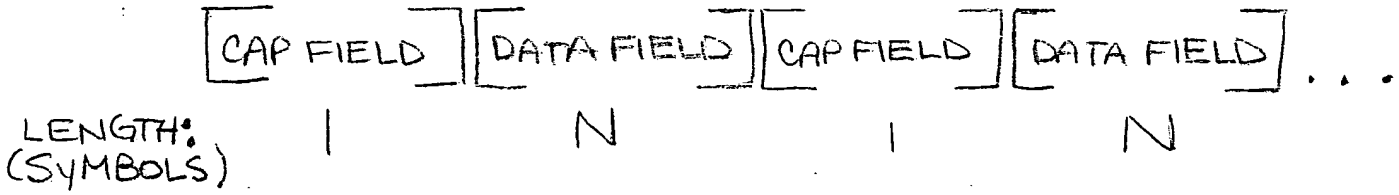


FIG 6B

EP 0 504 711 B2 2000 01

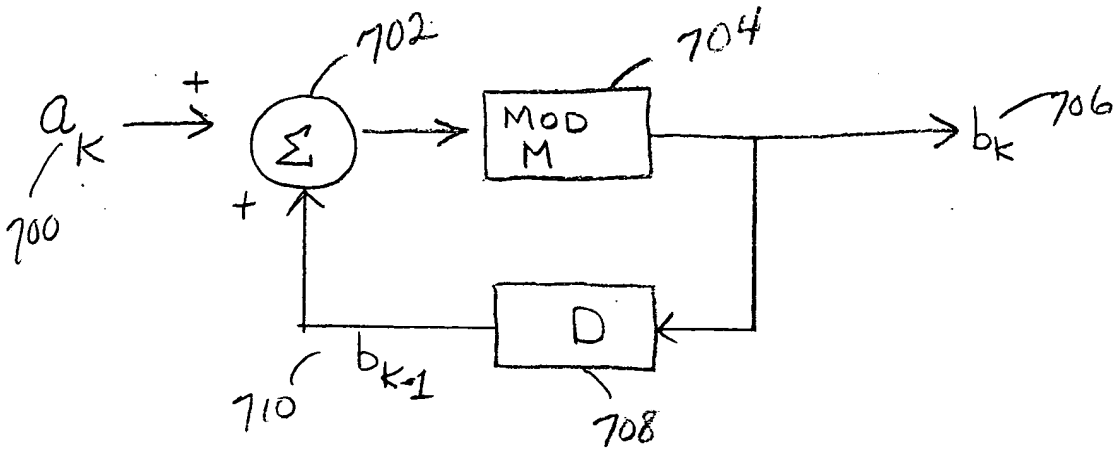


FIG 7A

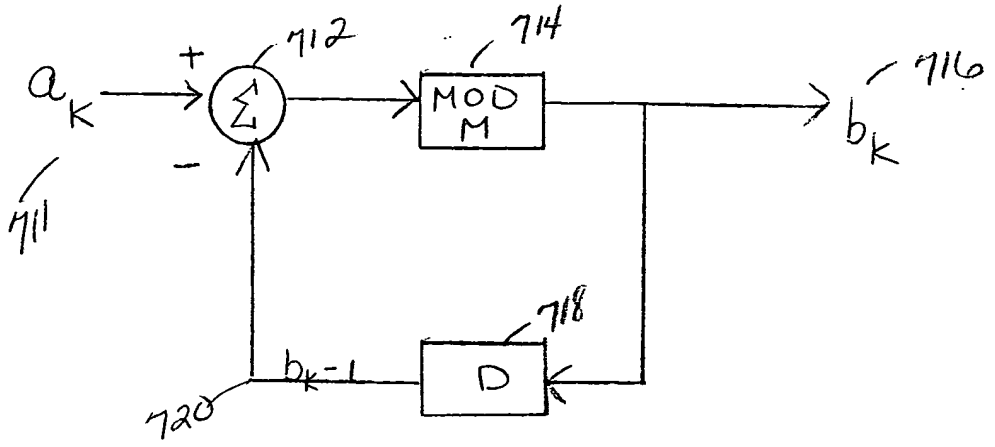


FIG 7B

EXHIBIT 1002 - 0044

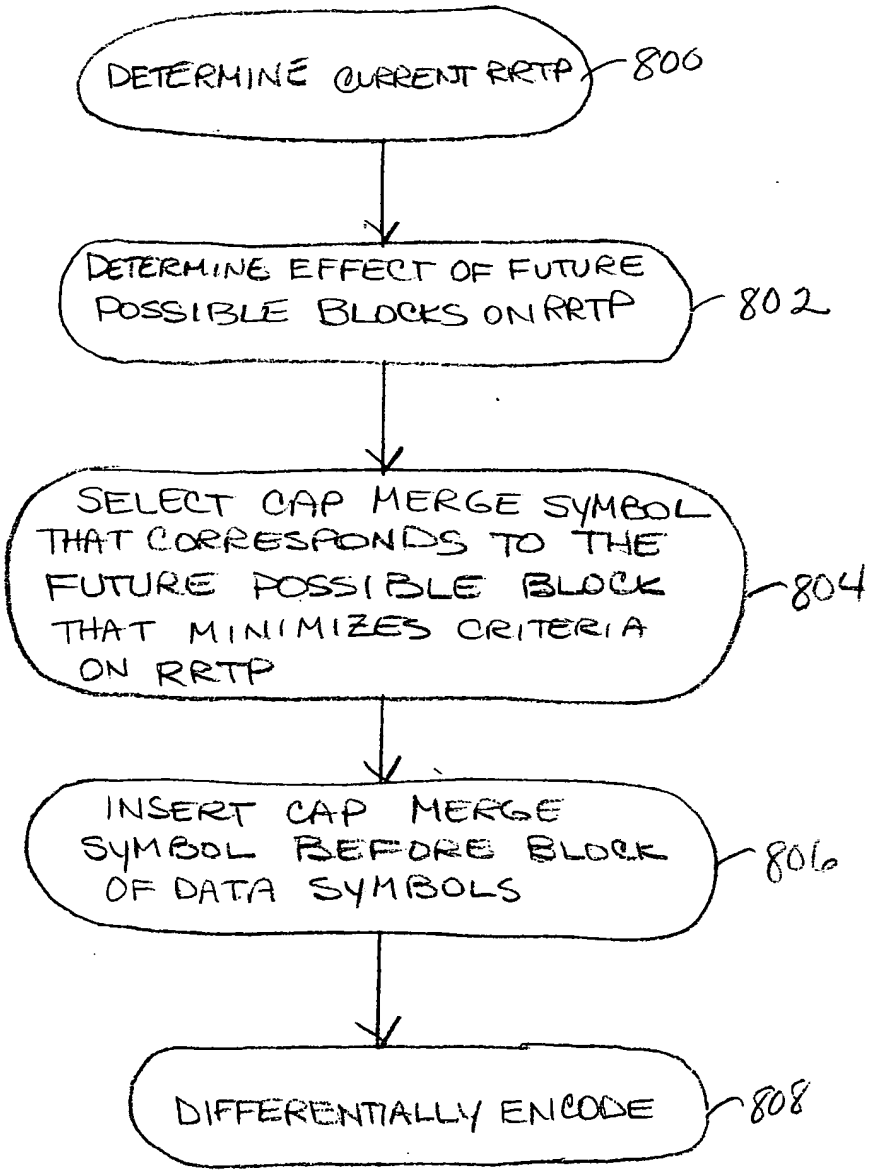

DETERMINE CURRENT RRTP
800
DETERMINE EFFECT OF FUTURE POSSIBLE BLOCKS ON RRTP
802
SELECT CAP MERGE SYMBOL THAT CORRESPONDS TO THE FUTURE POSSIBLE BLOCK THAT MINIMIZES CRITERIA ON RRTP
804
INSERT CAP MERGE SYMBOL BEFORE BLOCK OF DATA SYMBOLS
806
DIFFERENTIALLY ENCODE
808

FIG 8A

NO. OF LEVELS M : 4
PREVIOUS OUTPUT LEVEL : 0
INPUT BLOCK : 0 1 3 2
CURRENT RRTP : -2

CANDIDATE MERGE SYMBOL 0

a_k		0	0	1	3	2
b_k	0	0	0	1	0	2
$DV(b_k)$		-3	-3	-1	-3	+1
$DSS(b_k)$		9	9	1	9	1
RRTP	-2	+2	+6	+2	+6	+2

⇒ ENDING /RRTP/ = 6
⇒ MAX /RRTP/ = 6

CANDIDATE MERGE SYMBOL 1

a_k		1	0	1	3	2
b_k	0	1	1	2	1	3
$DV(b_k)$		-1	-1	+1	-1	+3
$DSS(b_k)$		1	1	1	1	9
RRTP	-2	-6	-10	-14	-18	-14

⇒ ENDING /RRTP/ = 14
⇒ MAX / RRTP/ = 18

CANDIDATE MERGE SYMBOL 2

a_k		2	0	1	3	2
b_k	0	2	2	3	2	0
$DV(b_k)$		+1	+1	+3	+1	-3
$DSS(b_k)$		1	1	9	1	9
RRTP	-2	-6	-10	-6	-10	-6

⇒ ENDING /RRTP/ = 6
⇒ MAX/RRTP/ = 10

CANDIDATE MERGE SYMBOL 3

a_k		3	0	1	3	2
b_k	0	3	3	0	3	1
$DV(b_k)$		+3	+3	-3	+3	-1
$DSS(b_k)$		9	9	9	9	1
RRTP	-2	+2	+6	+10	+14	+10

⇒ ENDING /RRTP/ = 10
⇒ MAX /RRTP/ = 14

FIG 8B

EP 0 893 884 A1

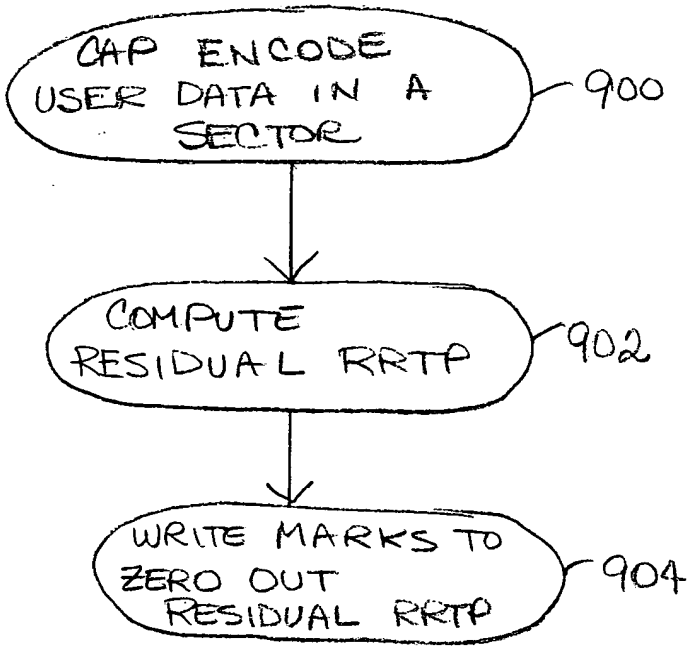

CAP ENCODE USER DATA IN A SECTOR
900
COMPUTE RESIDUAL RRTP
902
WRITE MARKS TO ZERO OUT RESIDUAL RRTP
904

FIG 9A

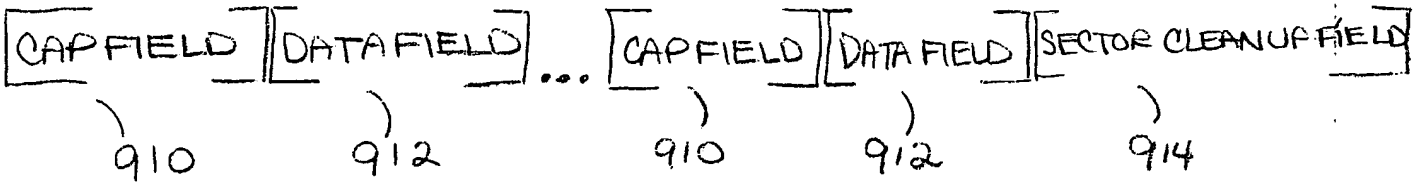

CAP FIELD
DATA FIELD
...
CAP FIELD
DATA FIELD
SECTOR CLEANUP FIELD
910
912
910
912
914

FIG 9B